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Conservation in Camping

for Campers and Conservationists

Published by the Soil Conservation Service, U. S. Department of Agriculture,
in cooperation with the American Camping Association.

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CONSERVATION IN CAMPING

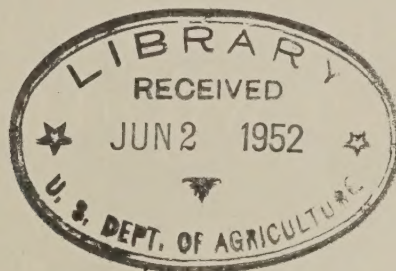
A WORKSHOP ON CONSERVATION

American Camping Association

George Williams College Camp

Lake Geneva, Wisconsin

October 1951



MARCH 1952

Soil Conservation Service, United States Department of Agriculture
in cooperation with the American Camping Association



Conservation Pledge

I GIVE MY
PLEDGE AS AN AMERICAN
TO SAVE AND FAITHFULLY TO
DEFEND FROM WASTE THE
NATURAL RESOURCES OF
MY COUNTRY - ITS SOIL
AND MINERALS, ITS
FORESTS, WATERS,
AND WILDLIFE

This Pledge originated in a national competition conducted in 1946 by OUTDOOR LIFE Magazine

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Editor's Note: Conservation is a way of life. It is an attitude of mind. It is wise resource use. It implies a philosophy of "live and let live". It is fundamental to American democracy, for freedom is concomitant with plenty. The very survival of our civilization depends upon the principles of conservation.

The natural resources and riches of the world, of our country, are not inexhaustible. Senseless waste and destruction have been all too prevalent. It is time to consider ourselves as stewards of our resources, and to consider education for stewardship through camping. We need to develop a conservation consciousness and this concept of stewardship as a part of our camping philosophy. We need to make of our camps demonstration areas for the best con-

servation practices. Conservation is an integral and necessary aspect of good camping.

With the inexorable need for conservation of our natural resources in mind, together with the conviction that camps have a definite contribution to make to conservation, a workshop on conservation was undertaken by the American Camping Association at Lake Geneva, Wis., in October, 1951. Included in the workshop group were experts in conservation, camping, recreation and education. An amalgamation and correlation of the material presented by conservation specialists together with the findings and proceedings of the participating camp directors and other members of the American Camping Association is presented in the following pages.--R.A.D.

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United States Department of Agriculture
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United States Department of the Interior
Fish and Wildlife Service
National Park Service

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Wisconsin Department of Public Welfare
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General Federation of Women's Clubs
American Nature Association
The Wilderness Society
Wildlife Management Institute
The American Tree Association

Industry

Trees for Tomorrow, Incorporated
The Firestone Tire and Rubber Company
American Walnut Manufacturers Association

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CONSERVATION IN CAMPING

INTRODUCTION

Natural resources, both physical and human, are the most precious possessions with which any nation is endowed. Instructional work which involves a careful analysis of "wise use" of natural resources and the development of necessary skills, attitudes and appreciations essential to its effective application is a major responsibility of every camp director.

Attempts are now being made to establish proper relationships between human resources and their many biological, economic, and cultural needs on the one hand, and the natural resources of the land on the other. This relationship is desirable from the standpoint of getting the highest standard of living for the people from the best use of the land. The social and natural sciences have both progressed sufficiently to provide a sound basis for conscious direction in land use planning.

For the benefit of specialized natural resource persons reading this report, a few words on the organized camping idea may be helpful. The American Camping Association operates to advance camping in all of its branches and to further the interests and welfare of children and adults through camping as an educative and recreative experience. At least five elements are included in the definition of organized camping: out-of-doors, recreation, group living, education, and skilled leadership.

Organized camping varies from one extreme of bringing the modern structures, equipment and pattern of living into a country setting to the other extreme of camping in small groups under primitive conditions where the daily needs of food, shelter and fun in the open become the program of the campers involved. The present trend is toward the more primitive type of camping in which woodcraft and campcraft skills are essential. There is no problem in making nature and campcraft interesting.

Trips into wilderness areas, or places where nature has not been upset too greatly by man, have tremendous value. It is recognized that travel and living in these undisturbed or unspoiled areas develop self-reliance and a series of skills in woodsmanship which have inestimable social values. The retreat periodically from the constraints of our modern civilization and the relaxation and enjoyment of the qualities of spaciousness furnish part of the charm and value of such areas. The

historical value of the preservation of outdoor areas where the public may observe conditions which existed in the pioneer stages of the nation's development is one which deserves recognition. There are also certain scientific as well as other educational, spiritual and inspirational values.

These outdoor, recreational, scenic and historical values are in reality a combination of basic natural resources. Practical considerations lead to a division of the field into five areas: soil, water, forest and other vegetation, wildlife and mineral resources. Consideration is given in this report to the over-all conservation and resource picture as it may relate itself to camps and campers.

THE PLACE AND VALUES OF CONSERVATION IN THE CAMPING PROGRAM

Conservation has a definite and logical place in the camping program. The natural resources of the land are priceless. Their availability depends upon man's understanding and wise use of them.

Camping provides an ideal educational situation for developing this type of understanding and use. Much of this conservation education must take place out-of-doors. As camping is outdoor living and brings children into direct contact with their natural environment, camps can be one of the most fruitful places to develop conservation attitudes. Through the opportunity of real experiences in the out-of-doors, things become real that have been taught but never learned. As the camping season is relatively short and children's time in the country and in the wilderness so limited, we need to make the most of it. It becomes a tremendous responsibility as well as an opportunity for camps to include conservation not only as a part of the camp program but as a part of the total philosophy of camping.

American children will become the custodians of our natural resources in an age which will make increasing demands upon them. We need to rear a generation of Americans who will understand and appreciate our natural resources, who will know how they contribute to our economic and social welfare and how they should be wisely used. The basic need to develop intelligent stewards can be met in part through camping education. We need

GROW UP WITH A TREE



to capitalize on the curiosity and interest of children in their natural environment.

The values of conservation in the camping program are economic, scientific, social, cultural and spiritual as well as educational. There is a dollars and cents value to conservation practices on the campsite in protecting the investment of the camp owner. Through the development of land use plans for campsites, camp owners are enabled to make the best possible use of their land with the least damage to it in terms of loss of vegetative covering, soil erosion, timber stripping, etc.

No less important are the spiritual values of conservation in the camping program. Broad open spaces, wilderness areas, wide horizons, lakes and rivers, desert and mountains alike have an intangible but potent impact upon the consciousness of those who come in contact with them and live with them for a time. Out in the open, whether it be on the prairie, at the seashore or in the forest, an appreciation of native landscape and of natural beauty and natural environment can be acquired. This type of appreciation is of value not only for the spiritual enrichment of the individual but because it can be a motivating force for conservation. Real appreciation will lead to the development of wilderness manners, so necessary for preventing further despoliation and abuse of our native landscape.

From the cultural standpoint, there is a relationship to the background of American history. There is an appeal and an excellent opportunity for conservation education and appreciation of our heritage in the pioneer and Indian background. There is much to be learned from it and it has a very strong appeal as a part of the camping program. This appreciation of America's past has a definite relationship to America's conservation.

There is a tremendous social significance to conservation education in camping. The practice of wise resource use in a democracy is properly the responsibility of the stewards, owners, and users of natural resources. Failure to manage these resources wisely leads ever more rapidly, as production declines, to

increased governmental supervision and control of their use. Ultimately the wise use of resources depends upon the creed we live by, the ethics that guide our conduct, and our essential sense of stewardship. Conservation is more than a matter of skills and information; it involves attitude and an active concern for attacking a major problem of human progress. These factors are inherent in conservation education. They assume added significance in a camp situation because the camp should be so conducted as to demonstrate, teach and realize in action the problem of democratic living and problem solving and of fundamental human relations.

The scientific values of conservation in a camping program become evident in activities which may well lead to the understanding of the following basic concepts.

1. Man must know and respect nature. His very existence depends upon the living matter which comes from the earth.

2. Man should know what natural resources are.

3. All plants and animals are members of the outdoor (biotic) community. They, too, are dependent upon soil, water and themselves for their existence.

4. While soil is a basic resource, soil, water, wildlife and vegetation are a unity because of their interrelatedness and mutual dependence. Changes in any one of them will cause changes in the others.

5. Conservation is simply the wise use of natural resources for the greatest good of the most people for the longest time. Natural laws govern the behavior of natural resources and man must understand and work in harmony with these laws. Failure to do so results in fires, famines, intensified floods, and lower standards of living.

6. Not only do our living standards but our very form of government itself depend upon an abundant supply of natural resources. Abundance and freedom go hand in hand.

7. Man should know the relationship of his environment to, and the effect of resource use on, the pattern of history.

These concepts may be more readily understood through the ecological approach to a conservation program which focuses attention on the use of resources and their interrelationship. It affords a more meaningful and dynamic way to study plants, animals, etc., than that of the conventional camp nature study programs involving collecting, identifying, displaying and the like.

Some appreciations and attitudes which might be developed through conservation activities in camp are the following.

1. Almost every animal, plant or object in the natural environment has a function that can be demonstrated.

2. Conservation is not only saving for ourselves and others. It is the wise use of all natural resources.

3. Conservation practice is essentially unselfish since it tends to insure the optimum use of resources for the entire population of today as well as that of tomorrow.

4. Thoughtless misuse of any natural resource constitutes a sin against society. This ranges from the spoilage of scenic beauty to the destruction of the sources of our food and other necessities.

5. Each citizen should understand the principles of the practice of conservation so that he can render an intelligent vote in the conservation requirements of his community.

Conservation will add a certain richness to the camp program. It will also build up constructive attitudes and do a job of mind conditioning. As in other fields, the camp administration and leadership need to evaluate the effectiveness of this program to be sure that the impact upon the camper registers in specific understandings, attitudes, appreciations, motivations and practices appropriate to the achievement of wise resource use.

THE FUNCTION OF THE AMERICAN CAMPING ASSOCIATION IN THE FIELD OF CONSERVATION

National level

Distribute the proceedings of the American Camping Association workshop on conservation

Include conservation in American Camping Association conventions

A small interest group on practical conservation in camp, having a panel of five to include camp directors and conservationists

Educational exhibits

An exhibit of camp blight (to be sponsored preferably by the Wilderness Society)

A conservation exhibit set up by a State Department of Conservation

Exhibit of a selected bibliography on conservation

Conservation pledge

Include a copy of the conservation pledge in each convention packet, or on the cover of the packet

Stimulate and promote memberships in the American Camping Association from allied organizations, public and private, such as U. S. Soil Conservation Service, U. S. Forest Service, Wilderness Society and the like

Correlate Section research studies and projects in conservation

Correlate Section studies of resources

Work toward publication of an American Camping Association bibliography on conservation

Utilize the resources of the *Camping Magazine*

Continue to publish articles dealing with conservation in camps

Section level

Initiate studies of land use plans for individual camps (wise use of the physical facilities of camps) in cooperation with the Soil Conservation Service

Investigate the possibility of undertaking a definite conservation project as a Section

Examples:

Stream pollution control

Experimental forest

Streamside improvement areas

Establish in cooperation with the State Department of Conservation; assist with initial work; and turn it over to the Conservation Department for maintenance

Conservation plans of the campsites in the Section in cooperation with the local Soil Conservation District

Initiate Section workshops on conservation in cooperation with State Departments of Conservation

Further the conservation work of other agencies through assistance in their projects which relate to the camping field

Example: Work with the State Department of Conservation in working out canoe trails

Make the American Camping Association known to other groups; make known its willingness to cooperate with other groups on conservation projects

Cooperate with colleges in offering summer courses in camp leadership in which conservation in camping is emphasized

Request publication of camp and camper centered material on conservation from government agencies and conservation organizations

Undertake localized study of conservation resources as they apply to camping

Include conservation in American Camping Association Section training programs

Outline in detail what is done in one or more specific camps in the conservation area

Devote major time in the field to conservation practices as they can be applied to the camping program

Example: Demonstrations in fire fighting

THE FUNCTION OF THE CAMP IN CONSERVATION: A PROGRAM OF ACTION

Conservation and the Camp Program-- Indirect Approach

Conservation begins with appreciation and understanding of natural resources and of our complete dependence upon them. Perhaps without full awareness of the fact on the part of many camp directors, counselors and campers, appreciation and intelligent use of natural resources have always been an integral part of many camp activities.

Because it hasn't been labeled "conservation," the contribution of camping to the preservation of these natural resources is no less significant. In a camping situation it is unimportant that it be so labeled and, with younger campers especially, probably unwise to designate it by a term which has little meaning to them.

Under no circumstances should conservation be an unrelated, isolated, "scheduled" activity which would create an artificial situation. The total camp program contains the elements for interesting and exciting learning experiences in conservation for both staff members and campers.

Conservation is vitally important to the total camp living situation. If the surrounding forests were destroyed, the springs or streams which supply the lake with water for swimming and canoeing would not continue to flow nor would there be material for shelters or for fires on an overnight trip.

Conservation is everybody's job. It must be fun, however, because that is what the camper wants and expects. It must be planned and developed within the limits of the comprehension and abilities of the different age groups.

In the suggestions which follow, identification of the activity with actual conservation may not always be obvious. Becoming acquainted with the wildlife, plant growth, soil and water and making a beginning in the understanding and appreciation of their value to us and of our responsibility to use them wisely can well be the first steps toward a program which will preserve those values for future generations of campers.

CONSERVATION IN SPECIFIC PROGRAM ACTIVITIES

Aquatics: Swimming, canoeing, rowing, sailing

Dependence of entire waterfront program on good conservation practice in surrounding area to provide continuing water supply

Relationship of Weather Bureau and canoe trips, sailing, etc.

Relations of kinds of woods in boats and good care of boats to the problem of dry rot, algae, etc; participation by campers in care, maintenance and construction of boats

Selection of wood for construction of rafts

Relation of conservation practices to condition of swimming area--what produced the kind of lake bottom, muddy or clear condition of water, etc.

Good conservation practices to avoid pollution of streams and lakes

Use of boats in wildlife exploration

Arts and crafts

There is unlimited opportunity to relate knowledge, appreciation and conservation of materials and their sources in craft work. Careful selection and procurement of all native materials is conservation.

Crafts using native materials--vines, cat-tails, fibers, splints, tree bark (from fallen trees only), pine cones, pine needles, acorns, twigs, nuts, seeds, grasses, mushrooms, lichens, rocks, shells, driftwood, clay, natural dyes, horns of cattle and deer, skins of animals (killed from natural causes), pigments and glazes

Wood carving and construction

Tanning deer hides

Making display cabinets for nature collections

Sketching, painting, photography

These can be used for interpretation as well as in "selling" conservation. These pictures would be useful in camp records or history and for public interpretation.

Use nature subjects to encourage appreciation.

Make posters or take pictures showing contrasts in land management.

Examples: Hillside covered with growth and one eroded by gullies from which growth is disappearing. "Before and after" subjects showing either growth and development or deterioration.

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Raftercrafters, Program Helps for Camp Leaders, Pleasantville, N. Y. \$5.00
Spear, Marian, Keeping Idle Hands Busy, Burgess Publishing Co., Minneapolis, 1950. \$1.75

Campfires, ceremonies and ceremonials

Stories, poems, songs about birds, forests and other natural resources

Building of fire--see camp craft

Camp assemblies or vespers

Use of nature subjects in songs, stories, poems, talks

Outdoor setting

Camp craft

Fires

Select safe place to build fires; know how to clear area to prevent fire from spreading

Select proper kind of wood for fires; use good forestry practices in selection and cutting; know how to use tools (axes, saws, etc.) so forests and trees will not be damaged

Know different kinds of fires and their uses and how to build them properly

Know how to extinguish fires so there will be no possibility of the fire going underground or flaring up later

Clean up fire area, disposing of extra wood or stacking it for future use. Leave site clean and with no evidence of having been used, unless it is an established area

Cooking

Edible plants may be used in outdoor meals. Gather or pick carefully and within reason, remembering that birds are dependent on some berries and seeds. Where good conservation practices are not followed, there is an absence of edible plants, berries, fruits and nuts

Observe cautions above in building fires for cooking



Carefully select materials for cooking gadgets and devices (reflector backs, pot hooks, cranes, broilers, pointed sticks)

Clean up site, dispose of refuse by complete incineration or burial under at least 6 inches of soil or take to main camp for disposal

Overnight trips

Site

Select site so that plant and forest growth will not be damaged extensively by cooking or camp fires, erection of shelters and other uses of site

Alternate use of campsites may prevent damage to vegetative covering

Leave site clean and with no evidence of having been used

If site is regularly used, leave supply of wood for next group

Caution campers against making blazes, carving initials and removing bark from trees

Shelters (tents, lean-tos, etc.)

Locate them so that minimum of clearing is necessary

Use good forestry practices in selecting and cutting boughs or saplings for temporary shelters or tent poles

Sanitation

Construct and maintain latrines, refuse pits, etc., so they will not pollute streams or other water supply and will not be offensive to this group or others using the site

Fires--see above

Cooking--see above

Conveniences for primitive outdoor living--(bough beds, stools, chairs, benches, tables, suitcase racks, coat hangers, clothes racks, etc.)



Carefully select materials, using only those that are plentiful, or removal of which would accelerate growth of more desirable units of the same species or of other more desirable species. Gather carefully and within reason

Make only what is needed

Lash carefully so that trees will not be harmed

Orienteering

Use of map and compass in finding your way through unknown country will provide adventure and appreciation of the out-of-doors

Outdoor good manners

Practice outdoor good manners in all of the above. Keep camp area clear of papers, cans and rubbish so that natural beauties can be seen and appreciated

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Camp Publications, Bar Harbor, Maine.

Send for list of 23 separate items on camp craft. See more extensive list in A.C.A. Annotated Bibliography of Camping

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Creative writing

Preparation and distribution (by camp newspaper, verbal reports, bulletin boards, performance, free materials mimeographed for campers to take home, etc.) of original plays, pageants, prose and poetry, accounts of projects, observations, conservation pointers, etc.

Individual and camp collections of nature and outdoor poems, stories, etc.

Dramatics, folk lore and Indian lore

Skits, pageants, or other dramatic events related to different phases of conservation: fire prevention, lumbering, nature lore, wildlife, forest management, wildlife preservation, outdoor good manners that the average hiker or camper should observe in order to eliminate results of selfishness and carelessness in use of the out-of-doors

Impromptu verbal reports by individuals or small groups to the whole camp on nature observations and unusual outdoor experiences

Folk or Indian legends related to any phase of nature

It is easy to show that the Indians and early settlers were entirely dependent upon unprocessed natural resources, e.g. for homes, food, clothing, tools and medicines

Traditions of local legendary heroes--Paul Bunyan, Pecos Bill, etc.

Johnny Appleseed story

Use of cowboy themes to show that pioneers and cowboys had to deal with problems of protection against natural enemies, overgrazing and water shortages

Dramatization of the history of the camp community and its development, showing how pioneer folk were dependent upon the wise use of resources in the growth of their community

Request older people in the community to point out changes that have taken place in natural resources during half a century, either growth and development or deterioration of forests, wildlife, streams, etc. in the camp area

Use of native materials for costuming or staging

Materials should be gathered with care and within reason

Fishing

Make own poles, lines, baits (flies and lures). Observe cautions in selecting and cutting material

Get acquainted with state regulations for fishing; know how to recognize kinds of fish

Study life history of fish--age calculations from study of scales

Mount fish which have been caught

Secure services of fish biologist or Conservation Department representative to help in advising on the use and development of camp streams and waters

Games and sports

Selection, preparation and maintenance of site in planning facilities, avoiding as far as possible poisonous plants, natural wild-life habitats, and unreasonable cutting or trampling of wild flowers, ferns and young trees

Construction and erection of equipment: tying nets to trees, wooden pegs, pounding nails in trees, selecting wood and feathers for archery

Care in trailing games so that paths will not be cut in unnecessary places, causing erosion

Instruction in wise and safe use of equipment --bow and arrow, etc.

Music

Recordings of bird songs

Creative music using nature subjects

Making musical instruments from native materials

Music incidental to pageants and other presentations

References

Coleman, Satis N., Creative Music for Children, G. P. Putnam's Sons, New York, 1922. \$3.50

Coleman, Satis N., The Drum Book, John Day Co., Inc., New York, 1931. \$3.00

How to Make and Play a Shepherd's Pipe, National Recreation Association, New York
Jaeger, Ellsworth, Nature Crafts, Macmillan Co., New York, 1950. \$2.49

Mason, Bernard S., Drums, Rattles and Tomtoms, A. S. Barnes & Co., New York, 1938. \$2.50

Sheehy, Emma D., There's Music in Children, Holt & Co., New York, 1946. \$2.00

Vinal, William G., Nature Recreation (p. 100), McGraw Hill Book Co., New York, 1940. \$3.00

Records

Bird songs recorded by University of California, Massachusetts Audubon Society and Cornell University

Nature

Weather lore

The effect of weather changes on animals and their indications of this

Relation of humidity and other factors to fire prevention

Measurement of rainfall and preparation of a runoff box

Weather Bureau

Plant growth and trees

Identify those plants and trees found in and near camp

Learn which plants are protected by state law, which plants may be picked sparingly and which may be picked in any quantity

Prevent needless depletion of plants and leaves by using one specimen for blue prints, smoke and other prints to substitute for actual plant life for individual collections

Know and avoid contact with noxious and poisonous plants

Identify and know use of edible plants

Make a plant gall collection

Make posters showing methods of travel of various kinds of seeds

Have a "plant growing race" by using different kinds of soil in each of several flower pots or boxes, such as rich garden soil, forest soil, soil from rich farmland and eroded farm land, soil from pasture land, subsoil, coarse sand, road dust, etc.

Make a record of the things you see which show the ways the forests benefit you at camp--for example, wood for buildings, furniture, tent poles, boats, rafts, floats, etc.

Animal and bird life

Keep a camp zoo

Use proper cautions in trapping and handling animals and birds so as not to injure them. Prepare natural habitats for them. Give natural food. Photograph or sketch while in captivity. Make plaster casts of tracks. Keep in captivity only a brief time and only if they are eating food and showing evidences of good health

Keep terrariums and aquariums. Observe cautions above

Discuss the relation of birds, snakes, toads and other insect eaters to conservation of our natural resources

Make and erect bird houses, feeding stations and bird baths. Keep records of bird visitors

Plant food patches to provide food for birds. (This can probably be done only by camps which are within reach of the city, so that campers could go to camp during planting season)

Make a wildlife sanctuary

Work with State Conservation Department bird banding project or game census

Camp library

Build a camp library on nature and conservation

Care of campsites

Discourage overraking around cabins and camp areas as this will destroy natural undergrowth, causing erosion and excessive dust

Nature hunts

Be selective in items listed on nature hunts. Careless picking and running or trampling during nature games or hunts can be destructive to plant growth and young trees

Conservation trails

Plan and lay a conservation trail. Include markers to call attention to such things as soil erosion, effect of paths, trampling, waterfalls, playgrounds, location of springs, as well as "labelling" the natural features

Prevention of soil erosion

Contact local Soil Conservation Service office for advice and help in understanding the importance of conservation in preventing soil erosion

Johnny Grass Seed Program (Izaak Walton League)

Pest control

Help wipe out diseases or pests which may destroy forests--the caterpillar, rust, etc.

References

Activities for Summer Camps, Arts Cooperative Service, Inc., New York, 1948. \$1.25

Hammett, Catherine T., Your Own Book of Campcraft, Pocket Books, Inc. New York. \$.35

Hammett, Catherine T., editor, The Camp Program Book, Association Press, New York, 1951. \$5.00

Henderson, Luis M.--The Outdoor Guide, Stackpole & Heck, Inc., Harrisburg, 1950. \$4.50

Hillcourt, William, Field Book of Nature Activities, G. P. Putnam's Sons, New York, 1950. \$3.95

Jaeger, Ellsworth, Wildwood Wisdom, Macmillan Co., New York, 1945. \$2.95

Medsger, Oliver P., Edible Wild Plants, Macmillan Co., New York, 1945. \$3.50

Mitchell, A. Viola and Crawford, Ida B., Camp Counseling, W. B. Saunders Co., Philadelphia, 1950. \$4.25

Nature Bulletins: Forecasting the Weather, Nature Activities for Summer Camps, Nature Trails, Seeds and How They Travel, Songbird Sanctuaries, The Terrarium, National Audubon Society, New York

Pettit, Ted, Book of Nature Hobbies, Didier Publishers, New York, 1947. \$3.50

Raftercrafters, Program Helps for Camp Leaders, Pleasantville, N. Y.

Vinal, William G., Nature Recreation, McGraw Hill Book Co., Inc., New York, 1940. \$3.00

Riding

Be aware of and enjoy the beauties of the out-of-doors as you ride

Properly maintain riding trails and pasturage areas

Properly care for animals

Riflery

Teach respect for and wise use of firearms

Know maximum gun range to avoid crippling animals

Teach knowledge of hunting laws, bag limits and other protective measures

Note: Only a few references have been listed which apply to specific subjects. Others will be found in the section on resources and in bibliographies in camping literature. Helpful material can be secured from State Departments of Conservation.

Conservation and the Camp Program-- Direct Approach

Purposeful work experiences

Seed project

Reforestation project

Dam construction

Trail maintenance

Gully control

Erosion control

Stream improvement



Tours of the camp area to see what is there in the way of natural resources

Soil and water

Vegetation and wildlife

Minerals

Trips outside the camp area to show the general environment of the region where the camp is located

Understanding of the significance and economic value of the natural resources of the area

Understanding of the intelligent use of these resources

Appreciation of scenic and aesthetic values in and around the camp area

Knowledge and understanding of the history of the area in which the camp is located: when settled, where the settlers came from, their early trades, historical highlights

Demonstrations such as permanent runoff plots

Establishment of a camp zoo where animals can be kept for short periods of time under natural conditions and provided with appropriate food

Sketching

Photography

Development of wildlife features along a nature trail

Establishment of a wildlife sanctuary on a suitable part of the campsite

Note: Conservation should be regarded as an integral part of the total camp program and not as a separate activity.

Exploration Trips From Camp (Direct Approach)

Soil observation

Have each camper choose a spot or area which is most repelling from the standpoint

of appearance, and indicate how he would improve it

Take a hike to the surrounding country to observe some eroded fields

Note the gullies and measure the loss of topsoil from sheet erosion or wind erosion

Define or describe or identify sheet erosion and wind erosion

Take a hike immediately after a heavy rain to observe erosion

Note the muddy water in gullies and in streams that get most of their water from cultivated land

Compare the muddy water that flows from eroded fields with the clear water that flows from good pasture or forest land

Note how silt has collected at the bottom of eroding hills

Bring in evidence that shows how weathering helps to build soil, and which weathering forces bring about changes

Determine the depth of topsoil in at least two contrasting areas such as grazed and ungrazed woods, cultivated fields and fields left in grass, grazed pastures and ungrazed haylots, etc.

Visit a stone quarry or gravel pit to study its geology; explore for fossils

Plan a field trip to find examples of gulley erosion, sheet erosion, streambank erosion, wind erosion, swamp showing evidences of having once been a pond or lake

Fish and wildlife observation

Visit a local commercial fisherman. Inquire about species of fish commonly caught, the making and keeping of nets, the marketing of fish, the life of the fisherman, the difference in the fish catch now as compared to that of fifty years ago

Visit a state game and fur farm, or visit a local fur ranch, pheasant rearing pens or fish hatchery

Visit a state wildlife reservation

Visit a state or federal or private game refuge or game management area with a wildlife technician to learn what is being done to make the area better for wildlife

Make a wildlife count on each of two contrasting approximate 5-acre plots such as grazed versus ungrazed wood lots, strip covered versus solid planting, or burned over versus not burned over area

Take a hike in a nearby forest to look for rabbits, squirrels, game birds, etc; for the small openings and hollow trees in which

birds and animals may nest; for nut-bearing trees and bushes that produce berries

Make plaster casts of animal footprints by pouring plaster of paris into tracks in mud. From these tracks (called negatives) make positives. Look for tracks around stream-beds

Make a wildlife food collection poster. Gather twigs and fruits of native plants. Attach them with household cement. Label the kinds of plants and draw pictures of animals, or list the animals that use these foods

Visit the home of the muskrat and the beaver

Take a field trip to observe insect enemies of the forest; collect evidences of the insect damage done

Take a field trip to observe tree diseases and collect specimens of them

Collect different kinds of rocks and minerals found on the campsite

Reference

Track Stories in Mud, Sand and Snow,
National Audubon Society, New York \$.10

Forestry observation

Visit a logging operation, pulp or paper mill, wood preserving plant, sawmill, turpentine plant or some other wood-using industry. Discover what the raw material is, where it comes from, how the finished product is made, how products are used, and how waste materials are disposed of

Visit a managed public or private forest area. Observe how forests are managed to grow repeated crops of timber, to protect the watershed, or to provide other services and benefits

Visit a tree nursery to obtain information on seed planting, and on the propagation and care of seedlings

Take a trip to a farm woodland which is pastured, and one which has been kept free from grazing. Note the forest floor and the growing trees

Visit a recently burned-over area. Note the effect of fire on tree destruction, on the forest floor, and on the susceptibility of the area to erosion

Find out what industries of the community are dependent upon trees and what specific products are produced

Explore the community to determine the kinds and the extent of the common trees

Do stump exploration to determine age and growth rate of the tree, rainfall, drought and fire

Water observation

Visit the lake, reservoir, river or wells from which the camp gets its water

Find out if the supply is adequate for periods of drought?

If the water supply comes from a lake or reservoir, find out how fast the lake or reservoir is filling up with silt

If the water comes from a river, find out how much mud is ordinarily in the water at the time it is taken from the river

If the water supply comes from wells, find whether the supply of water in the wells has been decreasing in recent years

Inspect the watershed from which the camp water supply comes

Find out how much is in grass and how much in forest

Find out how much has been properly treated with conservation measures to prevent erosion and other forms of water pollution

Determine whether the amount and purity of the water can be increased through proper soil and water conservation measures

Visit streams in the area

Notice whether they are clear or muddy

Find out whether the mud comes mainly from erosion of farmlands or from stream bank erosion

Look for places where streams are polluted with waste

Survey the camp community for the following:

Kinds of lakes and streams

Kinds of fish found in these lakes and streams

Conservation practices carried on

Improvement possibilities of the habitat of fish in these lakes and streams

A survey of the reptiles and amphibians

Other exploration and conservation activities

Conservation trails

After exploration, lay out a conservation trail in the area of your camp, showing evidences of good and poor land use, and marked good conservation uses and practices

Development of nature trails

Explore area for possible new types

Surveys

Survey the camp locality for places of scenic recreational and historic significance

Interviews

Interview an early settler of the community on the question, "How has the wildlife of the community changed during the last half century?"

Gathering and preparing wild fruits

A learning experience

Campers learn to identify wild fruits and to avoid poisonous plants

Campers gain some knowledge of environment where certain wild fruits grow, and may observe the bird and animal life in the area

Making maple sugar

Sugaring-off party

Trip to an abandoned farm

Look for evidence as to whether farm had to be abandoned because of depletion of natural resources

Use of a compass

The use of maps and compass in camp provides experience and adventure. This activity has many variations such as treasure hunts, using compass bearings, secret trails made on a map to be followed, cross-country hikes to points of interest, and bee-line walks through rough terrain

This type of experience may lead to discussions of navigation, the north star, the magnetic pole, the use of latitude and longitude, and other concepts that help to develop larger interests and deeper appreciation of one's physical environment

Suggested methods

Night hikes with "finding your way" projects involving star lore, night vision, effects of temperature, dew and its relationship to plant and animal life

Canoe trips with the practical opportunities to observe the ecology of the areas traversed

Animal pack trips which would include the care of animals, proper areas for grazing and opportunity to get into otherwise inaccessible areas

Bulk pack and survival trips that emphasize need for knowledge of wildlife foods and use of native resources for protection against weather

Developing Exploration Trips

Planning and conducting a field trip to observe erosion

Carefully select the areas to visit to show erosion before taking the campers to see them

A newly made road cut, especially if made through a hill well covered with sod will usually afford an excellent opportunity to observe different soil layers. If a road cut is not available, soil layers may be observed by digging a hole 2 to 3 feet deep in a pasture or meadow

A gully is a good place to observe the effects of erosion. The effects will probably be more evident following a heavy rain

A level patch of land at the foot of a cultivated hill is a good place to observe topsoil that has been washed off the hill and deposited on the level land

Soon after a rain, the muddy water of a small stream or gully that receives most of its water from cultivated land

A field that has been cultivated for several years and lies next to a well seeded pasture or undisturbed fence row will be a good place to measure the amount of sheet erosion that has taken place on the cultivated field

Things to look for on the trip

At the road cut, observe that the top layer of soil is darker in color and looser in texture than the subsoil below it. This is mainly because it contains more organic matter; it is more fertile and easier to cultivate. Observe the layer of rock below the subsoil from which the soil was formed.

At a gully, point out that the gully was not always there, that it has been washed deeper and longer with each rain unless it has already cut its way down to bedrock and to the top of the slope from which it gets its water.

Drive stakes in the ground near the head of the gully to mark its present position and measure the depth of the gully between these stakes. After several rains, come back and measure the gully again.

Find out the history of the gully.

Observe the topsoil deposited at the foot of a cultivated field.

Notice the depth of the mud. This can usually be measured after a heavy rain and before the land has been plowed.

Observe the rill marks and other signs of erosion on the field from which the

soil was washed as well as the kind of soil that was washed away.

Notice the differences in the kinds of soil. Usually the deposits at the foot of the hill will be more sandy than the particles carried away by the runoff.

Explore a muddy stream soon after a rain.

Take samples of the water in a fruit jar or other glass container. Set the samples away for a few hours and then observe the amount of mud that has settled to the bottom of the jar.

Compare this with the mud settled from a relatively clean stream.

Try to look at a part of the watershed from which the mud comes and observe the erosion on it.

Compare this with the wooded or grassed watershed from which the water comes to a relatively clear stream.

Measure the amount of topsoil lost from a field by comparing it with a nearby pasture or an undisturbed fence row.

Reference

Our American Land, Miscellaneous Publication 596, Soil Conservation Service, U. S. Department of Agriculture, Washington, D. C.

Planning and conducting a field trip to observe soil conservation

Making plans for the trip

Find out where the nearest Soil Conservation District office is and get in touch with a conservationist at this office. (There are more than 2400 Soil Conservation Districts in the United States.)

Request the conservationist to help plan a trip to see a conservation farm.

Plan to have either the conservationist or the farmer who owns the land explain the various conservation measures that are observed.

Things to look for on the trip

Observe the contour rows, strip crops, terraces and other conservation measures on cultivated fields.

Ask the farmer or conservationist to explain how crops are rotated.

Note that most of the steep or eroded land is in pasture or woods.

Ask the farmer or conservationist to explain which fields were taken out of cultivation and planted to grass or trees when conservation farming was started.



Observe the waterways that carry the excess water off the farm without causing erosion; usually such waterways will be covered with sod.

Cautions in the Field of Camp Conservation Education

1. Avoid too much explaining and talking about conservation. Substitute opportunities for self discovery and activities that involve good conservation practices.
2. Remember that, to the camper, fun and adventure are the major motivating drives. Conservation activities must be interesting and meaningful. They must involve opportunities for exploration and adventure.
3. Remember that conservation involves both attitude and desirable practices. The development of understanding and appreciation of natural processes is probably the beginning of a conservation attitude. Without it, conservation education would be sterile.
4. Avoid classroom approach to conservation education. The greatest asset of the camp as an educational institution is in its being a 24-hour group-living situation with camp experiences growing out of solving the problem of outdoor living, using outdoor resources and planning for adventurous use of camp time.
5. Avoid being too technical since that destroys the very natural interest that children have in their environment.

Conservation on the Campsite

Every camp should have a conservation or land use plan based upon a resource map of the campsite. There should be a study of the resources in each camp to determine what it does have on its grounds.

Soil erosion is or may become a major problem on some campsites. Wherever vegetation is beaten off where water may concentrate, there will be an erosion problem. It

may be advisable or necessary to relocate roads and paths away from places where water would normally concentrate. In general, ground cover should be such that as much water as possible is absorbed into the soil. Conservation practices should be used so that water that must run off is carried away safely without eroding the soil.

On all campsites there will be need for good land use. Trees should be planted on land that is too steep or otherwise unsuited to play grounds, grassy areas and other uses. There will be some places where conservation practices such as terraces or diversions will be needed to divert water from erodible areas. Tree and shrub planting may be needed to heal raw gullies and bare hillsides. These are only examples of some of the conservation practices that may be needed on campsites. They also constitute practices which the campers may help to apply.

Technical assistance for developing conservation camp plans may be had through local soil conservation districts where the Soil Conservation Service, Forest Service, State Conservation Department and other organizations have technical help available.

Methods and Techniques in Camp Conservation Programs

Motivation of the camp administration

- Expose camp directors to an actual conservation program

- Impress upon them the need and opportunities for such a program

- Arouse their interest and enthusiasm

- Stress the economic value of forest conservation to camp directors not otherwise motivated

- Secure U. S. Forest Service personnel to work with camp director and campers during the camp season

Motivation of the campers

- Arouse curiosity through nature interests

- Wildlife doesn't stay put, hence offers greater thrills of discovery than more static objects

- Emphasize the F(un) in Fish, Fur, Feathers and Forests

Techniques

- Discern and utilize teachable moments

- Increase the normal interests of children

Use a participant approach

Camper must derive satisfaction from his experiences. They must be fun and adventure

Leadership training in conservation

Lack of competent leadership is the weak spot in the whole program of conservation in camping

Every staff member should have a part in the conservation program rather than just the nature specialist

There must be a broader and better understanding of the out-of-doors if camping programs are to grow out of and relate to the out-of-doors

Use specialists in conservation to help camp leadership that is lacking in training and experience

There is need for developing progressive programs in conservation so that campers are not subjected to the same program year after year

RESOURCES

Conservation Resources: National, State, Community

Federal Agencies¹

- Federal Security Agency, Washington, D. C.

- United States Department of Agriculture, Washington, D. C.

- Soil Conservation Service

- Forest Service

- Extension Service (includes 4-H Clubs)

- United States Department of the Interior, Washington, D. C.

- National Park Service

- Fish and Wildlife Service

- Office of Education

National Organizations¹

- American Camping Association

- 343 South Dearborn Street, Chicago 4, Ill.

- American Forestry Association

- 919 17th Street N.W., Washington, D. C.

- American Nature Association

- 1214 16th Street N.W., Washington, D. C.

- Audubon Society of Canada

- 177 Jarvis Street, Toronto, Canada

- Boy Scouts of America

- 2 Park Avenue, New York City, N. Y.

- Camp Fire Girls, Inc.

- 16 East 48th Street, New York 17, N. Y.

- Garden Club of America

- 598 Madison Avenue, Washington, D. C.

¹ Useful pamphlets are available from most of these agencies and organizations.

General Federation of Women's Clubs
 1734 N Street N.W., Washington, D. C.
 Girl Scouts of the U.S.A.
 155 East 44th Street, New York 17, N. Y.
 Izaak Walton League
 31 North State Street, Chicago, Ill.
 National Audubon Society
 1000 Fifth Avenue, New York 28, N. Y.
 National Geographic Society
 1146 Sixteenth Street, Washington 6, D. C.
 National Recreation Association
 315 Fourth Avenue, New York City, N. Y.
 National Safety Council
 20 North Wacker Drive, Chicago, Ill.
 National Wildlife Federation
 3308 Fourteenth Street, Washington 10,
 D. C.
 Wilderness Society
 1840 Mintwood Place, N.W., Washington 9,
 D. C.
 Wildflower Preservation Society
 3470 Oliver Street, N.W., Washington,
 D. C.
 Wildlife Management Institute
 Investment Building, Washington, D. C.

State Resources ²

State Department of Conservation
 State Department of Public Instruction (Di-
 vision of Conservation)
 State Resources Planning Board
 State Department of Vocational Agriculture
 State University
 State College
 State Agricultural College
 State Department of Health
 State Department of Forestry
 State Fish and Wildlife Commission
 State Department of Agriculture
 State 4-H Clubs (Extension Service, State
 College of Agriculture)
 New Jersey School of Conservation
 State Teachers College, Montclair, New
 Jersey

County Agencies and Organizations

County agent or local county extension office
 County forester or game manager

Local or Community Resources

Resource people

Game wardens
 Forest rangers
 Soil Conservation Service technicians
 Soil Conservation District personnel
 Agriculture teachers in high schools and
 vocational schools

Elementary school, high school and college
 faculty members (especially in science
 and agriculture)
 Citizens interested in nature and conser-
 vation

Local organizations

Local chapters of national organizations
 (listed above, as Garden Club of Amer-
 ica, etc.)
 Horticultural Society
 Nature Club or Nature Study Society
 Botanical Garden
 Arboretum
 Conservation Club
 Fish hatchery
 Hiking club

Bibliography of Available Materials National Agencies and Organizations

U. S. Department of Agriculture
 Forest Service, Washington, D. C.

Know Your Watersheds, L282
 Water and Our Forests, MP-600
 You and Forest Fires, PA-64
 Some Plain Facts About the Forests, MP-543
 Our Forests: What They Are and What They
 Mean to Us, AIB-72
 A Catalog of Available Publications and
 Visual Aids

U. S. Department of Agriculture
 Extension Service, Washington, D. C.

Materials adapted to various areas obtain-
 able on request to federal Extension Service
 located in the United States Department of
 Agriculture at Washington, D. C., and the
 state Extension Service in state agricultural
 college.

U. S. Department of Agriculture
 Soil Conservation Service, Washington, D. C.

Books, Booklets, and Bulletins on Soil and
 Water Conservation, AIB-63
 Let's Save Soil With Sam and Sue
 How To Recognize Erosion in the Northeast,
 AIB-27
 Making Land Produce Useful Wildlife, FB-
 2035
 Youth Can Help Conserve These Resources--
 Soil, Water, Woodland, Wildlife, Grass,
 AIB-52
 Conquest of the Land Through Seven Thou-
 sand Years, SCS-MP-32
 Grass Waterways, Leaflet 257
 How To Build a Farm Pond, Leaflet 259
 Our Remaining Land--We Can Use it and
 Save it, AIS-79
 Streambank Plantings for Erosion Control in
 the Northeast, Leaflet 258
 Bicolor Lespedeza for Quail and Soil Con-
 servation in the Southeast, Leaflet 248

² Pamphlets on conservation may be obtained from many State Departments. Personnel is available from these sources. Many of these state agencies have local representatives or units which may be contracted for help in camp conservation education and projects.

Farm Fishponds for Food and Good Land
Use, FB-1983

U. S. Department of the Interior
National Park Service, Washington, D. C.
Fish and Wildlife Service, Washington, D. C.

Write for lists of available publications and
materials.

National Audubon Society
1000 Fifth Avenue, New York City

Audubon Teachers Guide (1951)
(supplied to sponsors of all Audubon Jr.
Clubs or available for \$1.00)
Audubon Guide to Nature and Conservation
Activities, 1951. \$3.75.
Various pamphlets: Nature Trails, At-
tracting Birds, Bird Houses, Small
Museums, Swamps and Marshes, Soil,
Water, etc.--generally ten cents each

Selected Bibliography

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Wildlife Management Institute, Washington,
D. C., 1949. Free.
- An Outline for Teaching Conservation, Herald
Tribune Fresh Air Fund, 230 West 42nd
Street, New York City.
- Armstrong, Edward, The Way Birds Live,
Trans Atlantic Arts, Inc., Hollywood-by-the-
Sea, Fla., 1946. \$2.25
- Brink, Wellington, Big Hugh (story of Dr. H. H.
Bennett, former Chief of the U. S. Soil Con-
servation Service), Macmillan Co., New
York, 1951. \$2.75
- Conservation and Nature Activities (splendid
practical book for camps), Audubon Society
of Canada, Toronto, 1951. \$3.70
- Conservation Education in American Schools,
American Association of School Adminis-
trators, National Education Assoc.,
Washington, 1951. \$4.00
- Elliott, Charles N., Conservation of American
Resources, Turner E. Smith Co., Atlanta,
Ga., 1951. \$3.28
- Funderburk, R. S., History of Conservation
Education in the United States, George
Peabody College for Teachers, Nashville,
Tenn., 1948. \$2.00
- Guide for Resource--Use Education Work-
shops, American Council on Education, 1785
Massachusetts Avenue, N. W., Washington,
D. C., 1952. \$0.50
- Gabrielson, Ira N., Wildlife Conservation,
Macmillan Co., New York, 1941. \$3.75
- Graham, Edward H., Natural Principles of
Land Use, Oxford University Press, New
York, 1944. \$3.50
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tional Textbook Co., Scranton, Pa., 1950.
\$1.25
- Howell, Henrie Andrews, Muddy Water, Ameri-
can Association of Colleges for Teacher
Education, Project in Applied Economics,
New York, 1949. \$0.35
- Joy, Barbara Ellen, Annotated Bibliography
on Camping, American Camping Associa-
tion, Chicago.
- Large Was Our Bounty, 1948 Yearbook, As-
sociation for Supervision and Curriculum
Development, National Education Assoc.,
Washington. \$2.50
- Leopold, Aldo, A Sand County Almanac, Oxford
University Press, New York, 1949. \$3.50
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The Soil, National Wildlife Federation,
Washington, 1942. \$0.50
- Melrose, Mary, and others, Raindrops and
Muddy Rivers, National Wildlife Federation,
Washington, 1941. \$0.50
- Mickey, Karl B., Man and the Soil, Interna-
tional Harvester Co., Chicago, 1945. Free.
- Myrick, Susan, Our Daily Bread, Interstate
Printers and Publishers, Danville, Ill., 1950.
\$2.04
- Ordway, Samuel H., Jr., A Conservation Hand-
book, Conservation Foundation, 30 East 40th
Street, New York, 1949. \$1.00
- Osborn, Fairfield, Our Plundered Planet,
Little, Brown & Co., Boston, 1948. \$2.50
- Our Part in God's Plan (A Camping Adventure
in Conservation Education), Abingdon-
Cokesbury Press, Nashville.
- Peterson, Roger T., How to Know the Birds,
Mentor Books, New York. \$0.35
- Sears, Paul B., Deserts on the March, Uni-
versity of Oklahoma Press, Norman, 1947.
\$2.75
- Sheppard, Ward, Food or Famine--The
Challenge of Erosion, Macmillan Co., New
York, 1945. \$3.00
- Soil and Water Conservation, Boy Scouts of
America, 2 Park Avenue, N. Y., 1952.
\$0.25
- This Land of Ours, Public Affairs Committee,
22 East 38th Street, New York. \$0.30
- Trees for Tomorrow, American Forest Pro-
ducts Industries, 1318 Eighteenth Street,
N. W., Washington, D. C.
- Van Dersal, W. R., The American Land,
Oxford University Press, New York, 1943.
\$3.75
- Van Dersal, W. R., The Land Renewed, Oxford
University Press, New York, 1946. \$2.00
- Varhart, Arthur H., Water or Your Life, J. B.
Lippincott, Philadelphia. \$3.50
- Vogt, William, The Road to Survival, William
Sloane Associates, 119 West 57th Street,
New York, 1948. \$4.00
- Waring, P. A. and Teller, W. M., Roots in the
Earth, Harper & Bros., New York, 1943.
\$2.50
- Zim, H. S., Insects, Simon and Schuster,
New York, 1949. \$1.00

Conservation Magazines

Audubon Magazine, Audubon Society, 1000 Fifth Avenue, New York City
Camping Magazine, 705 Park Avenue, Plainfield, N. J.
Conservation Magazine, American Forestry Association, 919 Seventeenth Street N. W., Washington, D. C.
Journal of Soil and Water Conservation, Soil Conservation Society of America, Paramount Bldg., Des Moines, Iowa
National Wildlife and Conservation Digest, Pick & Kearn, 784 Lonark Street, Winnipeg, Canada
Natural History, American Museum of Natural History, New York
Nature Magazine, 1214 Sixteenth Street N. W., Washington, D. C.
Soil Conservation, Superintendent of Documents, Washington, D. C.

Audio-Visual Aids

Films on conservation

Sources

Federal government agencies, such as U.S. Department of Agriculture, Soil Conservation and Forest Service

Regional and state offices of the Soil Conservation Service

State departments of conservation

University film libraries

State University Extension Service

National Audubon Society Photo & Film Department

Film rental libraries

Recommended films

A Scout in the Forest, Boy Scouts of America, 2 Park Avenue, New York, \$5.00. 20 minute sound, color--features wise use of the forest, improvement cutting, reforestation and values of the forest. (High school and adult)

Behind the Flyways, U.S. Fish and Wildlife Service, Washington, D.C., 1951. Free Bird Migration, Heidenkamp, Pittsburgh. \$3.50. 11 minute sound, color--an excellent teaching film on the story of bird migrations

Everyman's Empire, U.S. Forest Service, 1948. Loan. 20 minute sound, color--a colorful review of the extent and varied uses of the 152 National Forests (All school levels and adult)

High Over the Border, New York Zoological Society, New York, 1943. \$3.00. 21

minute sound--remarkable photograph of birds that migrate between North and South America, showing banding and protection activities--human interest

Lifeblood of the Land, U.S. Forest Service, 1947. Loan. 20 minute sound, color--beautiful portrayal of the role of the forests in acting as a reservoir for water--skillfully filmed and edited (Jr. high to adult)

Realm of the Wild, U.S. Forest Service, 1945. Loan. 28 minute sound, color--the finest wildlife film available shows a large variety of game birds and animals, all photographed in the National Forests. The film emphasizes the need to keep the number of browsing animals in balance with the carrying capacity of the land. (All school levels and adult)

The River, United States Department of Agriculture, 1937. 32 minute sound--an intensely dramatic, documentary story of the exploitation of the soil and the forests of the Mississippi watershed and of the floods which followed (High school and adult)

Then It Happened, U.S. Forest Service, 1948. Loan. 11 minute sound, color--causes of the disastrous Maine forest fires of 1947, with dramatic fire sequences (All grades and adult)

The Web of Life, Encyclopedia Britannica Films, Wilmette, Ill., 1951. \$6.00 each. Two 17 minute reels, sound, color. (1) The Strands Grow. (2) A Strand Breaks. Latest and finest in the series of films by John H. Storer, produced by the Conservation Foundation. Deals with vital interrelationships between animals and their environment. Shows how disturbing nature's balance reduces the earth's ability to support life. (High school and adult)

Water for a Nation, U. S. Soil Conservation Service, 1949. Loan. 20 minute sound, black and white--shows that conservation farming helps to keep the water in the soil where it falls as rain or snow, thus preventing runoff and flood. (Suitable for all schools, from the fifth grade up.)

Know Your Land, U. S. Soil Conservation Service, 1945. Loan. 10 minute sound, color--a story presented largely as a dialogue between a farmer and the family doctor, who is a supervisor of the local soil conservation district. The doctor recommends that the farmer get an expert diagnosis and prescription for treatment of the land that is washing away on the farm. He explains the land classes and some of the principles of their proper use and treatment.

Four 1-reel films were prepared by the Soil Conservation Service mainly for use in elementary and secondary schools. These films and a teacher's guide for use with them is available through any of the regional offices of the Soil Conservation Service.

The Living Earth Series, Conservation Foundation, New York City. Four films, 10 minutes each, sound, color--a series of films entitled "Birth of the Soil," "This Vital Earth," "Arteries of Life," and "Seeds of Destruction" produced mainly

for use in science classes of junior and senior high schools. This series is very suitable, however, for adult audiences, especially for urban audiences.

Charts, exhibits, film strips and photographs

Sources

Same as sources for films (listed above)

Farm machinery manufacturers

National Audubon Society color photographs, color slides and film strips

Cornell University bird song records

CONCLUSION

Conservation in Camping is the result of intensive study and discussions of leaders in the fields of conservation, camping, education and recreation. While it points up the place and values of wise resource use in camping, and includes not only many practical ideas for a program of action but descriptions of actual conservation programs as well, it is not an exhaustive study.

Camps throughout the country--from the coastal plains of the west across the Sierra Nevada into the arid southwest, from the Pacific northwest to the Rockies, from the extensive Rockies to the great plains and forests of

mid-America and to the lowlands of the south, on to the Appalachians and the eastern seaboard--present widely differing conservation problems. The need for wise resource use as well as the need for a philosophy of conservation are basic to all of them. The methods used to fill the need and to interpret the philosophy will differ from one geographical section of the country to another, from one camp to another.

Suggestions on method and program, on projects and resources will be accepted with appreciation. Additional material may be sent to the national office of the American Camping Association, 343 South Dearborn Street, Chicago 4, Ill.

APPENDIX

Conservation in the Modern World

by

Fred J. Schmeckle

Conservation--the intelligent use and wise management of our natural resources--is a tremendous movement, not only in our respective states, but in the world.

Our topsoil, a bare 6 inches of it, which supports life on this earth, is rapidly moving out from under us. With it goes the wealth of our nation. It takes Nature 500 to 1,000 years to build 1 inch of topsoil. We have demonstrated in many areas of our nation that in one generation we can destroy this vital heritage. Also, our forests, water and wildlife are decreasing rapidly and there does not seem to be much concern about it.

The earth is millions of years old, and those ages Nature created the bounty of our continent. In a few hundred years, man, in using these resources, has so misused them that today conservation is the most serious long-range problem faced by mankind. Leading scientists see a threat to Man's very existence in the race between our growing population and the natural resources. The population in our United States has doubled since 1900. As populations increase, the need for conservation grows apace.

During the past decades the responsibility of stewardship slipped away from us. We have been too eager to gather the wealth for ourselves and paid little attention as to how we used our natural resources or how we passed them on to the next generation. We have become so entangled in foreign alliances that we ought to become very much concerned about our resources. Our understanding today must include all of our God-given resources. We must understand the total ecological picture and become conscious of the full meaning of the harmony that should exist between Man and Nature.

We are saddling our oncoming generations with huge national debt. We ought to see to it that we leave them something at least for a part payment. We adults need to take that problem seriously so that these youngsters whom we are rearing will have something, at least, of a similar nature to that which we have enjoyed. It seems to me that our education program, nation-wide and world-wide, has failed in making the best use of the things in our environment. We have failed to teach what is necessary to life and living, and whether we like it or not, our survival depends upon it.

We have failed to develop the understanding of the interrelatedness and the interdependence of all things in their environment. We have spent hours in the schoolroom with books, but we have spent very little of our school time to show them where these things, about which they read, really are, and where and how they fit in the program of living.

In the training and education in our schools, homes, and churches (and this holds for camping, too), our aim should be to help boys and girls to grow up loving the soil, water, forests and wildlife; appreciating them in terms of human values; safeguarding and cherishing them and managing them wisely. Our American youth will respond to training in the wise use and management of our natural resources if we can provide good leadership. We need more people trained in the love of the out-of-doors and more specifically trained in the basic understanding of the natural resources that are such a vital part of camps. These resources are so precious to camping and human welfare in general that neither groups nor individuals can be allowed to destroy or misuse them either in play or for profit. It is therefore very evident that conservation is everybody's business.

In the process of growing up, children need to understand that actually these resources are no one's particular property, but that they are a gift of nature to all of us and that we are to be good stewards.

How may this be accomplished? It may be done only by teaching youth the basic facts about these natural resources, by developing an appreciation for them, and finally, by teaching the intelligent use and management of them. All of the aims we hold for better living will fail if we fall short in the wise use of our heritage of natural resources.

The spreading of the gospel of conservation is in the hands of administrators and teachers, whether in the home, church, school or camp. Ours is the responsibility to guide Young America to keep the good Earth good. This concept of stewardship will be of infinite value to these young people as they mature and finally assume a definite role in the use and management of our natural resources.

Each of the boys and girls that come to camps should grow in ecological consciousness of the total environment; camping experiences should contribute much to this understanding. Look, see, understand and appreciate constitute the training that boys and girls should get from camping experiences. They should be helped to see the balance that needs to exist if we are going to live in harmony with nature. If this can be done, then we shall reduce the carelessness and destruction of these precious resources and build an attitude that will insure wise use and good management.

The Indigenous Program in Action--1951

by

Marjorie Camp and Barbara E. Joy

This outline of the activities of one summer at our camp is presented with a spirit of humility. There is so much that could be done, and, as the years go by, there seems so little time. However, our experience may help others and that is why we have made this compilation.

The camp and its objectives

Location and facilities

Lake-woods location. Spring fed, sand-bottomed lake. Old lumber camp site. Access to many other lakes and a river. Hunting prohibited and land posted. Main camp facilities very simple, no electricity or telephone, running water only in kitchen. Kitchen crew of three, one maintenance man.

Personnel

Sixty-three girls, ages 7--up; 21 leaders, 16 of whom live in cabins with campers.

General objectives

To give city children a realistic opportunity to live harmoniously together, and to acquire an appreciation of the outdoors through a sense of relation to the world of nature about them.

Program objectives

An informal, choice program¹. Group participation is not stressed to the point where individual needs and desires are neglected. Emphasis on the individual, not the group.¹ No awards or honors or organized competition. Progress in activities charted, if desired, and in camp craft is used as basis

for trip privileges. Committee Plan fully used.² Skills and knowledge stressed are of practical use in camp life. Intellectual, social and aesthetic development stressed throughout all camp planning, instead of just one or two splashy or dramatic 'projects'

Skills learned and activities enjoyed

Camp craft skills

This list of requirements for trips³ set up by the Camp Craft Committee also includes much of our 'nature lore'. Participation is entirely voluntary. But overnight trips, the requirements for which increase in difficulty, are dependent on the individual's success in doing the work outlined.⁴

Skills included in current requirements are:

Care and use of knife, hatchet, saw

Fuels, fire-building, devices, fire prevention, good forestry practices

Practice in tent-pitching, bedroll making, packing of knapsack, care of supplies, sanitation, knot tying, makeshift shelters

Tree identification, and other specific knowledge of practical nature lore

Knowledge of poisonous and useful plants, berries, etc.

Whistle signals and 'lost'

Compass, orienteering, and map reading

Considerable emphasis on weather lore, including daily weather forecasting posted on chart, flying weather flags, use of instruments (thermometer, Taylor Fishing aneroid barometer, Dr. Krick's Weather Guide, simple liquid barometer, Taylor Ridgemount Baroguide), considerable work in theory, clouds, weather wisdom, etc.

Outdoor cooking. Of 15,483 meals served in 1951, 2,205 were eaten outdoors on trips and all-camp cookouts

Making of an individual project of definite use in camp life, or of native materials. Also a 'large project' done with partner or a group

Activities enjoyed

Arts and crafts

Use of native materials for craft projects. Articles from weathered knots and birch cross-sections (especially for Christmas decoration at home), balsam pillows, bark articles, cedar pins, alder whistles, articles of cones, general whittling projects, etc. Use of flowers for designs. The individual projects for the campcraft requirements are usually made in this department. To help campers know about

¹ "Let the Camper Choose", *Camping Magazine*, May 1951.

² Cooperative Committee Plan in Camps," Camp Publications, Bar Harbor, Maine. No. 2.

³ "Progressive Scale of Skills for Trip Requirements", Camp Publications. No. 60.

⁴ Organization of the Camp Craft Program in Camp, Camp Publications. No. 55.

the diversity of such "projects," all of a practical or useful nature, a long list, with page references to some dozen books, has been compiled and posted. Outdoor sketching is often enjoyed.

Dramatics

All-camp project, the production of an original "Pageant of Logging," involving authentic lumberjack songs, dances, and correct historical background and vocabulary. Every person in camp engaged in some aspect of the project. Preparation concentrated in 3 days between trips

Story telling

Two outstanding nature stories⁵ read at campfire and as a number on the Annual Camp Banquet

Sunday Services

The Sunday Service Committee chose several themes directly related to nature, and supported their programs with poems, stories, music, choir numbers, etc.

Nature photography

Careful outdoor photography stressed, and best pictures put on Camera Club Bulletin Board, from which all could order reprints. Particularly outstanding series of a loon's nest with eggs

Parties

One wildly successful Scavenger Hunt used nature items entirely. The theme of the Annual Banquet was "Our Woodland Friends". Decorations were mainly of natural materials, including two beautiful centerpieces of moss and bright-colored mushrooms, and one of blue clintonia berries and red bunch berries (camp colors).

Nature lore

This is not a "subject" in the camp and no special counselor promotes it, so to speak. Rather, a majority of the leaders are interested and it is basic to all activity. It is particularly a part of the camp craft program. The campers are at all times conscious of their environment, and their adaptation to and appreciation of it are fundamental in their daily camp living and activity. They are encouraged to give verbal reports to the whole camp of observations of particular interest, and a great deal of this is routine in camp. Star gazing and night walks occur often. Every

so often a bird census is made. Special riding trips and paddling parties occur on moonlight nights. Children are allowed to "stay up late" and see aurora borealis.

Conservation

In 1949 we sorrowfully watched a clutch of seven tiny merganser babies reduced to three by the end of the summer. In 1950 four turtle traps were purchased in Connecticut and faithfully set and tended all summer. Results were very unsatisfactory for the snapping turtles. In a further effort to attract ducks, 5 pounds of Jap millet seed, 1 pound of American lotus waterlily seed and 100 water smartweed roots were purchased and planted. Natural seed beds under pines containing cones were made to facilitate natural propagation. We leave brush piles and attract small animals. We bring in flowers, ferns, trees, etc., which will thrive in our soil. We do selective cutting for camp craft use, and are continually watching ways to improve growth of trees, seedlings, etc.

Visits to conservation centers and interesting spots

The campers visited the Squirrel Hill Fire Tower; State Fish Hatchery; nearby quaking bog to observe swamp flowers, including wild orchids; fishing camp which is a replica of an old lumber camp

Operational and maintenance activities

Canoe trips to collect bushel baskets of sphagnum moss which was used to re-chink the Adirondack lean-to across the bay

Gathering large quantities of balsam bows, cutting into fans of proper size and carefully laying a foot-thick bed in lean-to. Due to constant use (123 "nights out" were spent there in 1951), this had to be renewed in August.

Canoe trips to gather birch bark from down trees and to root up pitch pine stumps to use at main camp camp craft practice grounds. Some of this, as well as the balsam, was used in the arts and crafts department.

"Crews" sent out the first week of camp to repair all trails to camp sites on the property and the riding trails. Two outpost camps established on new camp sites made available on two lakes by neighbors. All old camp sites on property repaired and camp fire sites checked for safety.

Obtaining natural foods

All-camp expedition for blueberries (enough picked for 20 pies) and many small-group pickings for berries for muffins, cake, etc., for whole camp consumption

⁵ "Amos Mottran's Christmas Morning" from the Maine Pine Cone, Winter 1948-49 number. One of the finest nature stories we have ever known. "Kings of the Intervale", from Charles G. D. Robert's Watchers of the Trail. Excerpts from Rachel Carson's "The Ocean", the New Yorker, June 2, 9, 16, 1951.

Camping trips picked raspberries and blueberries for immediate consumption plus for use in pancakes, short cakes, etc.

Group picked pin cherries in the morning, and in afternoon made jelly over open fire at camp craft grounds. About 6 quarts of excellent jelly resulted, plus much fun.

Considerable fishing done, and fish cooked on special trips as well as by cook at main camp. Campers make own poles and fish markers, learn State fishing regulations. Pictures of native fish displayed in a permanent spot.

Exhibits--regular and special--and bulletin board displays

Camp craft exhibit⁶ with special emphasis on native fuels, types of fires, devices, fire prevention, good forestry practices in obtaining fuels, devices and craft materials

Library books on special subjects featured on special shelf or table by Library Committee

Topographical map of region, two enlarged aerial photographs of camp and surrounding country, State survey map of our lake, on movable bulletin boards, on permanent display. Other sets of maps much used on trips. Also pictorial maps of campsite.

Special exhibit of some 30 rather unusual blueprints of flowers. Special colored plates and pictures of local birds and flowers were put up separately on boards.

Some 24 very unusual pictures of Wisconsin lumber days from the Johnson collection, loaned by the Wausau Record-Herald. Excellent selection and photography, and most interesting to campers and visitors.

A 5-foot model of an old time river raft, loaned to us by our Indian trading-post friend, mentioned later.

All summer exhibit of flowers, ferns, shrub and tree sprays and nature oddities, at the Main Lodge on a ledge by which people passed constantly. Flowers kept in glass bottles, with labels marked with pencil so writing could be erased when a new specimen was put in container. In charge of Nature Committee.

Intermittently, nature photographs and snaps taken currently on the Camera Club Bulletin Board

A large assortment of pictures, and illustrated articles on a great variety of conservation, historical, nature, camp craft techniques and equipment and related subjects placed on bulletin boards, changed

weekly. Some of these boards have interchangeable headings. Jokes, some pointing up attitudes and skills, others just plain funny, interlarded more serious material. We think this is one of the best ways to interest children who "absorb" much in their leisure moments from perusal of these boards. The range of material is remarkable.

Permanent exhibit of artifacts of Southwest Indians in library. Collection of old and selected new Southwest Indian pottery in director's cabin. Also a collection of knives of many varieties and from many countries, and a collection of axes and hatchets.

From time to time the best of the individual projects made for the camp craft requirements, with names of makers attached. In 1950 there was a special exhibit of the collection of old and mostly out-of-print books on camping out owned by one of the writers.

Cooperation with other agencies and outside talent

The camp paid for 59 memberships in the Junior Audubon Club for those who wished to join.

Wild Life stamps donated by a friend were given out and a completed Wild Life stamp book loaned by a former camper was displayed.

Maps were obtained from local and state conservation agents and State Forestry Headquarters.

The local Fire Ranger loans us annually two Indian pumps to add to our own supply, so that we have a fire-fighting nucleus within our own organization. In 1950 we stopped what would have been a serious forest fire by getting our unit into action quickly.

In 1951 special effort was made to procure speakers from the outside who could bring to the campers authentic messages about the past history of the State and of their work to conserve and protect Wisconsin's resources. Those who contributed greatly in this way were:

A teacher from a State College who gave a splendid talk on historical Wisconsin and the past and present development of the State. Her first talk several years ago was on Wisconsin authors, especially of children's books. This list was mimeographed and later given to each camper. A revised list was given in 1951.

A representative of Trees for Tomorrow, Inc., who took the campers on field trips. Especially interesting to them was his use of the tree coreborer to ascertain the ages of various trees on the property.

⁶ "Campcraft on Display", Camping Magazine, June 1949.

A return engagement of a most interesting woman who keeps an Indian trading post some 20 miles from the camp, and who, through her father's interest and through her own contacts and study is an authority on past and present Indian lore. She brought a colorful display of old Indian utensils and accoutrements, feather and beaded old garments, etc. The meeting was held in the outdoor camp fire circle by the lake. The campers were fascinated by her stories of old Indian life and customs, and it was a most instructive and interesting program.

A representative of the State Soil Conservation Committee gave a fine talk on soil conservation and erosion control.

A Wausau teacher whose hobby is Indian mounds gave an interesting talk supported by charts and pictures.

Six men from the State Conservation Department, plus a fire-fighting truck, trailer and plow, and many instruments and displays spent the whole day in camp. It was the first time a team from the Department had cooperated in this way with a camp and they, as well as we, deemed it highly successful. The men were a forester, a game management man, law enforcement officer, fishery biologist, and the district and local forest rangers. They took turns talking with each section of the camp. Equipment (including manning the fire pumps in a realistic way) and displays were examined, and a lively question period followed each talk and demonstration.

The first, third, and fifth of the above programs were financed by the camp. The meetings were presided over and the speakers introduced by camper Committee Chairmen.

Literature and books

The following free material were obtained by the management and given to each camper who wished them:

Sets of colored bird cards from the Arm & Hammer Company and from the Singer Sewing Machine Company

Membership pamphlet of Junior Audubon Society (much prized by campers)

"It's a Snap", from Eastman Kodak Company

How to Forecast the Weather, Mutual Life Insurance Company of New York

In addition, several copies each were obtained from state agencies of "Wisconsin Game Fish," "Wisconsin Forestry" and "Trees of Wisconsin". "How a Tree Grows" and "What We Get From Trees" have been

displayed permanently for several years. "Cloud Forms" from the federal government were on display in the library for use in weather lore.

Backing up these special materials is an excellent private library on camping, natural resources, nature lore, poetry, etc., and many similar books are in the library on loan from the State Free Library Commission. The Camp Library Committee is in charge of this and the special book displays previously mentioned.

Special gifts from camp families this year were several sets of the fine nature books printed by the Whitman Publishing Company, and money towards a Sky Scope for use in 1952. Gifts to the camp are always presented formally by the child of the donor, and suitable inscriptions placed in or on the article.

Camp-Site Care and Wilderness Preservation

by

Harold C. Bradley

Probably the greatest internal threat to our wilderness reserves in the far west today is what might be termed "Dirty Camp Blight". It exists to some extent wherever people camp. No doubt it has always existed. But in the semi-arid regions west of the Rockies, during the last few years, it has grown to epidemic proportions. Unless checked it will eventually destroy the wilderness quality, to preserve which the reserves were set aside.

The causes are numerous. Just the fact of semi-aridity makes this western region much more vulnerable to deterioration from human use than the camping country of the far east and the middle sections of our country. The warm and humid summers of the latter provide a fast-growing cover of lush vegetation that quickly blankets and obliterates the minor scars of occupancy. It may be impossible to locate a well-remembered camp spot, or a portage trail used a season or two before, in the canoe country of our north-central states and Canada. In the Sierra Nevada, by contrast, one may return to a camp site after 10 years to find everything much as he left it. The dung of the pack animals bleaches and dries; the fire stones and campfire ashes are recognizable; the firewood is stacked just as it was piled, still dry and ready for use; the little trail to the stream or lakeside, worn by trips for water, is still faintly discernible. In this sort of region the scars of occupancy are cumulative.

Other reasons for the epidemic character of the "Blight" are to be found in the social and economic changes that have taken place in the

west in the last decade. Populations have mushroomed, with migration added to the natural increases. There is more leisure time for trips afield and more ready cash to finance them. Highways have been improved and pushed closer to regions once remote and accessible only with time and effort. Almost every family owns an automobile and takes advantage of the good roads for week-end trips, or for more lengthy pilgrimages. All these obvious factors have made for a rapid increase in the volume of traffic that heads out of our urban centers each summer to seek refreshment and change in the open country. A rapidly growing proportion of these wayfarers finds its most satisfying recreation in the wilderness areas of the State and National Parks, and in the National Forests.

The return of our soldiers, trained in out-of-door survival, many of them now eager to use their newly acquired skills in the recreational field, has added a sudden boost to camping volume. The wealth of Army surplus materials on display and sold for bargain prices has solved the equipment problems for many a young man anxious to get into the open again. For many others it has served as a lure to try this form of adventure for the first time.

There are many other factors, not so obvious, that swell this surge into the wild country. Among them certainly is the fact that a large proportion of the now middle-aged group in our communities were exposed to the experiences of life out-of-doors in their youth, in organized groups. The teen-age youth in the first and second decade of the century, when organized camping was first getting rapidly under way, is now in his fifties and sixties. A graduate of a public or private camp, he carries with him an appreciation and a taste for the out-of-doors life, which has endured and in which his present economic circumstances permit him to indulge. While I am unable to document the statement accurately, it is my impression that a large percentage of the fishermen of middle age, who are today packed back into the wilderness country--and most of the fishermen who can afford a pack trip are approximately middle-aged--are graduates of organized camps, or their close associates. This is, of course, as it should be. They were early indoctrinated in the satisfactions of camping and in its techniques. Now, when they can return to it easily, because of economic independence, they do so.

What few of the leaders of organized camping could have foreseen around the turn of the century was the necessity for establishing in the minds of the young camper a deep sense of kinship with the wild community, an attitude of consideration based on understanding and love, a sense of responsibility too strong and too deeply ingrained to permit the acts of careless vandalism that today mark even our most sparkingly beautiful virgin wilds.

My own acute awareness of the problem developed when I returned to camp in the Sierra a year ago, after a lapse of a dozen years, expecting to find it about as I always had since I first began to camp, in the 'nineties. It had changed--at least along the trails I followed. Perhaps if I had continued to visit the mountains yearly, the gradually developing evidence of deterioration would have escaped me, or I would have adjusted to it any easy stages as it grew. But at the end of the long absence it was everywhere evident, and rather shocking. A single example will suffice to indicate the point. My companion and I left Clover Meadow Pack Station early one morning, bound for the headwater streams and lakes of Granite Creek. We were mounted and had one pack animal. We planned our camps where there would be meadows adequate to our small string of stock. Our first camp was to be at Lillian Lake--one of those lovely sapphire gems, just below timber line, cupped in a basin of clean glaciated granite. Fringe meadow and clumps of Lodgepole pine and mountain hemlock were there to provide shelter, shade, and feed for the animals. The lake was said to be well stocked with trout--though this was of minor importance to us. We had plenty of good 'grub' in our kyacks. On Lillian Lake there are two possible camp sites only--equally charming and convenient. When we reached the lake shortly after noon we found one of the camps occupied, and moved on to the other, which had been occupied by a party of fishermen for 10 days, but which had been vacated 2 days before our arrival.

The views, as we threaded the trail through the forest at the lower end of the lake, were just as we had pictured them--the backdrop of granite peaks, gray and shining in the sun, still decorated with a few snow fields, against the marvelously clear blue of a desert sky; below, the lake with its darker blue and sweeping flash of silver ripples, as gusts from the peaks drove eastward across it. In among the forest groves, the cool, dark shade alternated with spot-light shafts of sun on the carpet of pine needles. Then the camp!--littered beyond description with cans and bottles, cast-off clothing, shoes, and rotting food. A kapok pillow had been left--and already the rodents had opened it so that its fluffy stuffing blew about like a local storm of dirty snow. Crumpled newspapers, magazines, cartons, festoons of toilet paper streamers were everywhere. And about the improvised table and the elaborately built-up fireplaces were swarms of flies, yellow-jackets and ants, doing their best, no doubt, to dispose of what their big brothers had abandoned in the way of food. We tied up our animals and stepped to the shore of the lake to get a drink and eat our lunch--a little sick at heart. But here we found another shock. The golden granite sands of the lake near shore were fouled with a slimy mixture of macaroni, beans, fish bones, heads and

entrails, and a half-used swollen cake of soap. We ate our lunch dry and returned for a closer inspection of the camp. Evidently it was an old one, often used by fishermen. The can pile lay in a small grove of picturesque and ancient hemlocks and represented an accumulation of years. (It takes many years for the average tin can to rust through in the Sierra and join the soil--unless properly burned in the campfire.)

We decided to push on another 4 or 5 hours of rugged mountain trail to Rainbow Lake. On Rainbow there is just one spot adapted to camping, and when we arrived there late in the afternoon, that spot too had been similarly defiled. But there was no choice--our animals and we were too tired to make another try. We cleared away an area just big enough for our sleeping bags and a cooking fire, and made the best of it for the night.

Ten or fifteen years ago these same spots were being used by the occasional fishermen. Canned foods were less abundant then. Occupancy was less. There might be a few cans in sight--not many. Papers and paper cartons were seldom brought in, and more seldom left unburned. It was no chore then to tidy up a camp and make it look as good as it was before the white man came. But now--after some 10 or 15 years--the sparkling quality of the wilderness has gone. The "Blight" had struck.

This experience has been reported in many sections of the Sierra from the Donner Pass region on the north to Whitney and the Kern on the south. Every discriminating mountaineer brings out the same disturbing story. Perhaps the worst feature of the "Blight" is that it tends to perpetuate itself in crescendo. You clean up the moderately littered camps when you reach them. The badly fouled spots make you throw up your hands and quit. You may move on and leave them, or you may grimly ride it out, as we did. Your own mood may reflect the mood of your camp. "What is the use?" is your mental attitude perhaps. You very likely toss away your cans as carelessly as your predecessors have done, and so increase the litter. When there are so many, one or two more will make no difference. Carelessness breeds more carelessness, and the "Blight" becomes a vicious circle. In the end, the quality of wild and unspoiled mountain country disappears. It is precious, but it is also very fragile. Fundamentally, it is a mood--a matter of the mind.

To be sure, the great mountains all about you remain unharmed and unchanged. But the integrity of your wilderness experience has somehow gone. The intimate quality of the trip is determined in no small degree by the intimate quality of your camps. If you must camp each night in a foul and littered camp home, your intuitive appraisal of the whole experience has been foul and littered.

What can be done? The Sierra Club has made it almost a ritual to turn its High-Trip manpower to the task of cleaning up the camps it occupies. Its slogan has for some years stressed travel that "leaves no trace". Techniques have been developed for disposing of refuse which leaves the sick wilderness camps restored. Briefly they may be summarized:

1. Burn everything that can be burned--including scrapings from the plates, paper, old clothes, etc.

2. Burn the cans till labels, tin and lacquer have completely disappeared, leaving the burned raw iron of the tins vulnerable to rapid rusting. The difference between heat-blackened sheet iron and tinned or lacquered cans in rusting in our mountains is tremendous. A burned can may crumble and return to the soil as rust in a year or two. An untreated can is often almost as good as new a dozen years later.

3. Flatten the burned cans with a stone or the axe of the heel of the boot. This reduces the space it occupies about 75%.

4. Pack out the flat cans and empty jars and bottles. If you are travelling with a pack train, the load and bulk of the packs are decreasing each day. There is no transportation difficulty in taking out the material to the road-head or the pack station--where there is already a sizeable can dump, and where it may eventually be used for scrap.

5. Another equally effective method of disposal of the burned cans and bottles is a nearby talus slope, back from the trail and in a crevice between two large talus blocks. Talus slopes are always available and near at hand or along the trail in the Sierra and in mountain country in general. It is easy to slip the cans into a crevice where they are unseen and cannot even be found.

6. Still another--but much inferior--method of disposal is to dig a pit and bury the burned cans. Only burned cans will stay underground. If raw cans are buried, a bear will invariably come along, smell the evidence of food and empty the pit right to the bottom, scattering the cans in all directions. It is not a method to be recommended, even for burned cans. Also in rugged mountain country it may be impossible to find soil enough for a pit except in the meadows--and here the meadow sod with which the filled pit may be covered is almost certain to die and leave a tell-tale bald spot that takes years to heal. The capillarity of the ground has been broken and the grass dries and fails to establish itself again, even if immediately and conscientiously watered. A series of bald spots in a meadow is almost as disturbing as the cans themselves would be.

The question naturally may be raised: why bring this problem to the leaders of organized

camping, where all such problems are taken care of as scrupulously as in a city? Simply to urge that the education of youth in the organized camps include a thorough course of indoctrination in wilderness--its values, its fragility, its precious quality, together with field experience for the more advanced groups, in wilderness "good manners" and the techniques that should be a fundamental part of the techniques required for successful good living in the wild out-of-doors. What I am trying to present is a plea for better trained woodsmen; campers who "leave no trace." Here is a challenge indeed for the organized camps. It may mean survival of the wilderness for the future enjoyment of your present youth.

The older generation presents an immediate problem of another sort. They will have to be reached through the packers, the Rangers in the Parks and Forests, by groups organized specifically for wilderness conservation. If we are successful, there will still be unspoiled wilderness for your current clientele when they, too, become free-lance campers, hunters and fishermen.

What the Agencies Are Doing in Conservation

by

Wes H. Klusmann

The literature on conservation published by the Camp Fire Girls, the Girl Scouts of the U.S.A. and the Boy Scouts of America indicate that all three organizations have this in mind: that, in addition to wanting to add a certain richness to the program of the camp, they also want to do a job of mind conditioning on the part of youth--that is, toward the worth of the soil, of the water and the wildlife. They are a part of our stewardship as citizens.

The Camp Fire Girls have approached conservation this way: "Like love, religion, or politics, conservation is truly a personal attitude." Their conservation publication says, in addition, it is "an action that may differ with each individual and each group, according to the environment and interest. Yet, collectively, its influence becomes of vital importance to every person, every community, every nation in the world at large. It is vital in the fullest sense because the very survival of our civilization depends upon the principles of conservation, and whether they operate depends on us."

Within the Camp Fire Girls' program are some very interesting projects. Principally, there is this general field of forestry, soil and water conservation. They, like the Boy

Scouts of America, have depended to a large extent on the national agencies that have been very helpful in providing resource materials.

In a section of a book entitled "Our Land,"¹ concerning conservation activities of the Camp Fire Girls, there are suggestions of "Things to Do" followed by a listing of some 37 "Take Your Choice" activities. They are rather, intriguing things, like "take a hike to your local watershed area" and "get a local forester, water engineer or county agent to explain how this functions."

The Girl Scouts of the U.S.A. have the Lou Henry Hoover memorial conservation project. Mrs. Hoover was at one time one of the great leaders of the Girl Scouts, and she had a great interest in the field of conservation. The Girl Scouts have been a little more specific in their approach, and maybe a little more restrictive.

There are several definite steps in developing what they refer to as the Lou Henry Hoover Memorial Forest, or Memorial Sanctuary. (This is something for troops to do.)

Establish beyond a doubt the boundaries and titles of the land to be used for the Lou Henry Hoover conservation project. If the land is not owned by the Girl Scouts, have a written agreement as to the projected use of the land, the length of time it can be used for this project in the present, and future use of the land and its planting.

Spend at least 1 year surveying the land for what already grows there and lives there. Make this as thorough as seems necessary to the people being used as consultants on the project.

Make a working list with the aid of consultants of native animals and plants that would be desirable and might live there if the right conditions were offered.

Work with the Forest Service of the Department of Agriculture and the National Park Service or any other state forestry or conservation committee in establishing the conservation project. Make a 10-year plan for the project, including its use and development. It is to be understood that any Lou Henry Hoover Forest or Sanctuary, no matter what size or where it is situated, must be really a sanctuary for wildlife. This means that the land must be posted properly against hunting, fishing, and anyone in any way disturbing flowers at any time.

The Girl Scout program has branched out in its senior unit in the placing of an emphasis on conservation activities through a so-called "Trail Blazer Program". This is similar to the Boy Scout merit badge program.

In the Boy Scouts of America, the merit badge program has a large number (100 or more) subjects that boys might follow on a special-

¹ Our Land--Conservation Activities for Camp Fire Girls, Camp Fire Girls, Inc., New York, 1949, \$.75.

interest basis. Until recently they have had a merit badge in conservation. Now there are three merit badges in place of this one. The three are forestry, soil and water conservation, and wildlife management. Incidentally, these merit badge pamphlets are good reference material for program work in many camps. Many youngsters might want to follow the projects even though they didn't get any particular credit for completing them.

Some time ago we made a rather careful study of our whole program from our younger age group (Cub Scout age of 8) up through our Explorer program which carries up to 18, to determine at what points this field of conservation touched the program, to determine what might be done in just a very normal way without labeling it conservation, and then to discover how we might get more richness in program built into the activities for these various groups. That is under way at the present time. Some progress has been made in terms of testing out some of these activities. When we plan to change the requirements, we usually farm them out for a period of time on an experimental basis and see how youngsters do react to it.

The rather big job that we did in the attempt to reach our goal was the development of some conservation literature that went out to all of our local Councils. There were 10,000 copies, and we had a great demand for additional copies. Incidentally, there were some by-products that might be cashed in on. One of the by-products of the interest in this field was that it brought to us people who have never been interested in Scouting before. But here was a general interest that they had in conservation. It brought to us many men--say sportsmen, outdoorsmen, and forestry people--many more than we have had before. One of the intriguing things about it is this thought: We have a feeling that we are getting farther away from the pioneer days and the glamour characters we used to think about (Dan Boone, Dan Beard, Ernest Thompson Seton)--people we thought of as great outdoors men. Now it seems that the fishermen, the hunters, the foresters, the conservationists are the counterpart of those old by-gone days. If we in the youth agencies

bring into the picture these men who sort of have the smell of wood smoke in their hair, we are bringing a touch of color into the program. In relationship to the boy interest, that will not only help us put over the program, but bring to us many personalities that otherwise we would not have within our group.

Trees for Tomorrow

by

M. N. Taylor

Trees for Tomorrow is a camp in northern Wisconsin sponsored by 11 paper mills and 4 power companies. Industry is concerned with the stepped up use of our natural resources and the future supply of these resources. Conservation and resource management is good business. It is also a fundamental concept which must attract more industries into the conservation field. The paper mills and power companies which sponsor Trees for Tomorrow think of conservation in terms of 25, 50 and 100 years from now.

The general program presented by Trees for Tomorrow is the result of coordinated effort on the part of educators, foresters and soil conservationists who, as technicians, provide the technical staff at the camp. The program embraces a study of soil, water, forests and wildlife management in relation to wise resource management.

From April 1 to June 1 each year there are conservation workshops for high school students. During the following 5 months, until November 1, there are summer school sessions on conservation for teachers and conservation clubs, and workshops for civic groups and industry. Adult groups study facts pertinent to the development of the wise use of Wisconsin's natural resources.

The workshop programs include field trips; a movie, "The Living Earth;" question and answer forums; and an evaluation period. More than 7,000 persons have participated in the Trees for Tomorrow programs in the last 6 years.

